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Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2008; month=11; day=2; hr=15; min=50; sec=48; ms=205;]

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Validated By CRFValidator v 1.0.3

Application No: 10579104 Version No: 2.0

Input Set:

Output Set:

Started: 2008-09-29 16:16:48.125
Finished: 2008-09-29 16:16:51.056
Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 931 ms
Total Warnings: 44
Total Errors: 14
No. of SeqIDs Defined: 44
Actual SeqID Count: 44

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W	213	Artificial or Unknown found in <213> in SEQ ID (5)
W	213	Artificial or Unknown found in <213> in SEQ ID (6)
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W	213	Artificial or Unknown found in <213> in SEQ ID (9)
E	257	Invalid sequence data feature in <221> in SEQ ID (9)
W	213	Artificial or Unknown found in <213> in SEQ ID (10)
E	257	Invalid sequence data feature in <221> in SEQ ID (10)
W	213	Artificial or Unknown found in <213> in SEQ ID (11)
E	257	Invalid sequence data feature in <221> in SEQ ID (11)
W	213	Artificial or Unknown found in <213> in SEQ ID (12)
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W	213	Artificial or Unknown found in <213> in SEQ ID (13)
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W	213	Artificial or Unknown found in <213> in SEQ ID (14)

Input Set:

Output Set:

Started: 2008-09-29 16:16:48.125
Finished: 2008-09-29 16:16:51.056
Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 931 ms
Total Warnings: 44
Total Errors: 14
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Actual SeqID Count: 44

Error code	Error Description
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W 213	Artificial or Unknown found in <213> in SEQ ID (15)
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W 213	Artificial or Unknown found in <213> in SEQ ID (17)
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W 213	Artificial or Unknown found in <213> in SEQ ID (18)
E 257	Invalid sequence data feature in <221> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
E 257	Invalid sequence data feature in <221> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20) This error has occured more than 20 times, will not be displayed
E 257	Invalid sequence data feature in <221> in SEQ ID (20)
E 257	Invalid sequence data feature in <221> in SEQ ID (21)

SEQUENCE LISTING

<110> POLYPHOR LTD.
Universitaet Zuerich

<120> Template fixed beta-hairpin mimetics and their use in phage display

<130> 753-65 PCT-US

<140> 10579104
<141> 2008-09-29

<150> PCT/EP 03/12783
<151> 2003-11-15

<160> 44

<170> PatentIn version 3.5

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<223> Key sequence known to occur in Platelet-Derived Growth Factor (PDGF), see Ross, R.; Raines, E. W.; Bowden-Pope, D.F.; Cell, 1986, 46, 155-159.

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Val Arg Lys Lys
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<210> 2
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<212> PRT
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<220>
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<400> 2

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<210> 3
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3

Trp Leu Asp Val
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<210> 4
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<220>
<223> Key sequence known to occur in Factor Xa inhibitors, see Al Obeidis, F.; Ostrem, J. A.; Drug Discovery Today, 1998, 3, 223-231.

<400> 4

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1 5

<210> 5
<211> 5
<212> PRT
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<220>
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1 5

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<220>
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1 5

<210> 7
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<220>
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<400> 7

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1 5

<210> 8
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<220>
<221> DISULFID
<222> (1)..(10)

<220>
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<222> (1)..(1)
<223> ACETYLATION

<400> 8

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1 5 10

<210> 9
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<212> PRT
<213> Artificial Sequence

<220>
<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2 wherein the alpha amino group of the first amino acid is

acetylated, wherein Z consists of 8 amino acids, and wherein both R1 and R2 consist of 2 amino acids.

<220>
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<222> (1)..(1)
<223> ACETYLATION

<220>
<221> DISULFID
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1 5 10

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<212> PRT
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<220>
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<220>
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<222> (1)..(12)

<220>
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<222> (1)..(1)
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1 5 10

<210> 11
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> DISULFID
<222> (3)..(14)

<400> 11

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1 5 10 15

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<212> PRT
<213> Artificial Sequence

<220>
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acetylated and wherein Z consists of 10 amino acids.

<220>
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<222> (1)..(12)

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

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1 5 10

<210> 13
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2
wherein the alpha amino group of the first amino acid is
acetylated, wherein Z consists of 10 amino acids, and wherein
both R1 and R2 consist of 2 amino acids.

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> DISULFID
<222> (3)..(14)

<400> 13

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1 5 10 15

<210> 14
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2 wherein the alpha amino group of the first amino acid is acetylated, wherein Z consists of 10 amino acids, and wherein both R1 and R2 consist of 2 amino acids.

<220>
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<223> ACETYLATION

<220>
<221> DISULFID
<222> (3)..(14)

<400> 14

Asn Gly Cys Thr Lys Trp Phe Leu Ala His Tyr Ala Thr Cys Lys Val
1 5 10 15

<210> 15
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<212> PRT
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<220>
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<220>
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<223> ACETYLATION

<220>
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<222> (3)..(14)

<400> 15

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1 5 10 15

<210> 16
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2 wherein the alpha amino group of the first amino acid is acetylated, wherein Z consists of 10 amino acids, and wherein both R1 and R2 consist of 2 amino acids.

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> DISULFID
<222> (3)..(14)

<400> 16

Glu Thr Cys Thr Lys Trp Phe Leu Ala His Tyr Ala Thr Cys Thr Lys
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<210> 17
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2 wherein the alpha amino group of the first amino acid is acetylated, wherein Z consists of 10 amino acids, and wherein both R1 and R2 consist of 3 amino acids.

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> DISULFID
<222> (4)..(15)

<400> 17

Glu Leu Lys Cys Thr Lys Trp Phe Ser Asn His Tyr Gln Thr Cys Glu
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Val Lys

<210> 18
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2
       wherein the alpha amino group of the first amino acid is
       acetylated, wherein Z consists of 10 amino acids, and wherein
       both R1 and R2 consist of 3 amino acids.

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> DISULFID
<222> (4)..(15)

<400> 18

Lys Val Gly Cys Thr Lys Trp Phe Leu Ala His Tyr Ala Thr Cys Gly
1   5   10   15

Leu Glu

<210> 19
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2
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       acetylated, wherein Z consists of 10 amino acids, and wherein
       both R1 and R2 consist of 3 amino acids.

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> DISULFID
<222> (4)..(15)

<400> 19

Gly Gly Gly Cys Thr Lys Trp Phe Leu Ala His Tyr Ala Thr Cys Gly
1   5   10   15

Gly Gly

<210> 20
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Hairpin mimetic derived from the general formula Cys-Z-Cys
       wherein the alpha amino group of the first amino acid is
       acetylated and wherein Z consists of 12 amino acids.

<220>
<221> DISULFID
<222> (1)..(14)

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<400> 20

Cys Gly Thr Lys Trp Phe Ser Asn His Tyr Gln Thr Gly Cys
1   5   10

<210> 21
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2
       wherein the alpha amino group of the first amino acid is
       acetylated, wherein Z consists of 12 amino acids, and wherein
       both R1 and R2 consist of 2 amino acids.

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> DISULFID
<222> (3)..(16)

<400> 21

Glu Thr Cys Gly Thr Lys Trp Phe Ser Asn His Tyr Gln Thr Gly Cys
1 5 10 15

Thr Lys

<210> 22
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Core peptide sequence Z taken from the CDR L3 loop of an antibody described in Jiang, L. et al., Chimia, 2000,54, 558-563.

<400> 22

Leu Trp Tyr Ser Asn His Trp Val
1 5

<210> 23
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified core peptide sequence Z derived from core peptide sequence with the SEQ ID NO:22 containing a stabilizing beta-turn and a beta-sheet sequence according to Chou, P. Y., Fasman, G. D., J. Mol. Biol, 1977, 115, 135-175.

<400> 23

Lys Trp Phe Ser Asn His Tyr Gln
1 5

<210> 24
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Core peptide sequence Z constructed from peptide with the SEQ ID NO:25.

<400> 24

Phe Leu Ala His Tyr Ala
1 5

<210> 25
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Oligopeptide which does not contain a dedicated stabilizing beta-turn sequence or a beta-sheet sequence according to Chou, P. Y., Fasman, G. D., J. Mol. Biol, 1977, 115, 135-175.

<400> 25

Leu Trp Tyr Ser Asn His Trp Val Lys Trp
1 5 10

<210> 26
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
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<400> 26
catgcccggg tacctttcta ttctcactct gaaacctgc 39

<210> 27
<211> 84
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide No. 2 used to construct insert DNA coding for template fixed hairpin mimetic of SEQ ID NO:10.

<400> 27
catgtttcgg ccgagccacc acctttggtg caggtctgat aatggttgct gaaccatttg 60

gtgcaggttt cagagtgaga atag 84

<210> 28
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> DNA sequence coding for the peptide shown in SEQ ID NO:8.

<400> 28
tgcaaatggt tcctggcgca ttatgcgtgc 30

<210> 29
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> DNA sequence coding for the peptide shown in SEQ ID NO:9.

<400> 29
gaaacctgca aatggttcct ggcgcattat gcgtgcacca aa 42

<210> 30
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> DNA sequence coding for the peptide shown in SEQ ID NO:10.

<400> 30
tgcaccaaat ggttcagcaa ccattatcag acctgc 36

<210> 31
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> DNA sequence coding for the peptide shown in SEQ ID NO:11.

<400> 31
gaaacctgca ccaaatggtt cagcaaccat tatcagacct gcaccaaa 48

<210> 32
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> DNA sequence coding for the peptide shown in SEQ ID NO:12.

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<210> 33
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> DNA sequence coding for the peptide shown in SEQ ID NO:13.

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<210> 34
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> DNA sequence coding for the peptide shown in SEQ ID NO:14.

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<210> 35
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<210> 36
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> DNA sequence coding for the peptide shown in SEQ ID NO:16.

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<210> 37
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<210> 38

<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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aaagttggtt gcaccaaatg gttcctggcg cattatgcga cctgcggtct ggaa 54

<210> 39
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<210> 40
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> DNA sequence coding for the peptide shown in SEQ ID NO:20.

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tgcggtacca aatggttcag caaccattat cagaccggtt gc 42

<210> 41
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> DNA sequence coding for the peptide shown in SEQ ID NO:21.

<400> 41
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<210> 42
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<213> Artificial Sequence

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Phage library.

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<223> n is a, c, g, or t

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<222> (37)..(38)
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<210> 43
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<212> PRT
<213> Artificial Sequence

<220>
<223> Translated protein sequence of a randomized template fixed
beta-hairpin mimetic phage library

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<222> (3)..(14)

<220>
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<222> (4)..(6)
<223> Xaa can be any naturally occurring amino acid

<220>
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<222> (10)..(13)
<223> Xaa can be any naturally occurring amino acid

<400> 43

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<210> 44
<211> 84
<212> DNA
<213> Artificial Sequence

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